

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

Before addressing the issues raised in the Official Action, Examiner Pezzlo's attention is directed to the Information Disclosure Statement filed on September 27, 2001. Examiner Pezzlo is respectfully requested to consider and make of record the documents cited in that Information Disclosure Statement, and to return a signed and initialed copy of form PTO-1449 submitted with that Information Disclosure Statement.

Examiner Pezzlo's comments on page two of the Official Action concerning the earlier imposed election of species requirement are noted. Applicant maintains that the election of species requirement is improper, at least for the reasons discussed in the earlier response. Nevertheless, to avoid delaying prosecution of this application, applicant is not petitioning the election of species requirement at this time, but reserves the right to do so at a later time.

Submitted with this Amendment is a Request for Approval of Proposed Drawing Change in which reference character --DC-- has been added to Fig. 1 to address the drawing objection set forth at the top of page three of the Official Action. Accordingly, withdrawal of that drawing objection is respectfully requested.

The specification has been amended in minor respects to correct the inadvertent typographical errors kindly pointed out by Examiner Pezzlo in the middle of page three of

the Official Action. Accordingly, withdrawal of the objection to the disclosure is respectfully requested.

The bottom of page three of the Official Action raises a concern regarding the phrase "vehicle condition" in line 11 of Claim 1. It is said that this wording is vague, although the Official Action does not provide any explanation. Studying the wording in Claim 1, it is not understood why the phrase "vehicle condition" as it pertains to the claimed vehicle condition detecting means is considered vague. Thus, it is not possible to respond to this matter. Examiner Pezzlo is kindly asked to review the language in question to ascertain if concerns still exist regarding the claim language in question. If so, Examiner Pezzlo is invited to contact the undersigned to discuss the matter.

Withdrawal of the claim rejection based on the second paragraph of 35 U.S.C. §112 is respectfully requested.

The Official Action sets forth an anticipatory rejection of all claims currently at issue, Claims 1, 3-5 and 8-14, on the basis of the disclosure contained in U.S. Patent No. 6,318,817 to *Martin et al.* That rejection is respectfully traversed for at least the following reasons.

One significant difference between the claimed hydraulic brake system at issue here and the disclosure contained in *Martin et al.* is that the vehicle hydraulic brake system here utilizes, in combination with the other claimed features, a hydraulic pressure generating device and an auxiliary hydraulic pressure source. The auxiliary hydraulic pressure source comprises an accumulator and a hydraulic pump, with the hydraulic pump pressurizing the

reservoir supply brake fluid to a predetermined level to generate a power hydraulic pressure. As recited in original Claims 4 and 11, the hydraulic pressure generating device is comprised of a master cylinder and a hydraulic booster that assists operation of the master cylinder through use of the power hydraulic pressure generated by the auxiliary hydraulic pressure source. This wording in original Claims 4 and 11 has been incorporated into independent Claims 1 and 9, respectively. Amended Claims 1 and 9 continue to be readable on the elected "species" and remain generic to all of the "species" identified in the first Official Action.

The Official Action addresses Claims 4 and 11 by noting that *Martin et al.* discloses a brake cylinder 102 corresponding to the claimed master cylinder and an accumulator 111 corresponding to the claimed hydraulic booster. However, the accumulator 111 disclosed in *Martin et al.* is not a hydraulic booster and does not assist operation of the brake cylinder 102 through use of power hydraulic pressure generated by an auxiliary hydraulic pressure source. A careful reading of the disclosure contained in *Martin et al.* reveals that the particular electro-hydraulic braking system disclosed in *Martin et al.* is a type of braking system that does not utilize a hydraulic pressure generating device comprised of a master cylinder and a hydraulic booster as claimed.

It is also to be noted that the rejection itself is inconsistent. Page four of the Official Action points out that the accumulator 111 disclosed in *Martin et al.* corresponds to the accumulator recited in the independent claims. Addressing Claims 4 and 11, the Official Action goes on to note that the same accumulator 111 also corresponds to the

claimed hydraulic booster forming a part of the claimed hydraulic pressure generating device. Aside from the fact that the accumulator 111 is not a hydraulic booster that assists operation of the brake cylinder 102 in the manner claimed, the accumulator 111 disclosed in *Martin et al.* cannot be said to correspond to the claimed accumulator on the one hand while also corresponding to the claimed hydraulic booster on the other hand.

For at least the reasons set forth above, withdrawal of the anticipatory rejection based on the disclosure contained in *Martin et al.* is respectfully requested.

Early and favorable action with respect to this application is respectfully requested.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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Application No. 09/963,395
Attorney's Docket No. 000400-873
Mark-up of Specification - Page 1

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Mark-up of Specification

Paragraph [0034], Beginning on Page 14

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GROUP 3600

[0034] In addition, according to the driving condition setting means DC of the present embodiment, the weight of the load on the vehicle (i.e., a vehicle load) is determined based on the output signal from the vehicle height sensor HS. If the vehicle load is found to be large, the [diving] driving condition of the hydraulic pump FP is set for making the accumulator hydraulic pressure larger than that when the vehicle load is small, whereby the drive starting and terminating timings are set in order that the accumulator hydraulic pressure is within the pressure range B. Moreover, a determination is made of whether or not an automatic brake control is active, and whether or not an urgent brake operation has been performed. When the automatic brake control is active or the urgent brake operation has been performed, the drive starting and terminating timings are set in order that the accumulator pressure is within the pressure range B. It is to be noted that in each of such cases the driving current (the driving duty) of the electric motor M is set to the maximum (100%).

Paragraph [0037], Beginning on Page 15

[0037] As shown in Fig.1, the pressure generator PG includes a master cylinder MC and a hydraulic pressure booster HB which assists the operation of the master cylinder MC by using the power hydraulic pressure outputted from the auxiliary hydraulic pressure

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Mark-up of Specification

source AP. The pressure generator PG further can be provided with the pressure sensor PS2 which continuously detects the hydraulic pressure outputted by the master cylinder MC. The output signal of the pressure sensor PS2 (i.e., the detected result) is available or ~~can be [sued]~~ used ~~for checking whether or not the automatic brake control is active, or~~ whether or not the vehicle is under the urgent brake operation.



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Mark-up of Claims - Page 1

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GROUP 3600

Mark-up of Claims 1 and 9

1. (Amended) A hydraulic brake system for a vehicle comprising:
 - a hydraulic pressure generating device for pressurizing brake fluid supplied from a reservoir to apply a brake pressure to a wheel cylinder in response to operation of a brake operating member;
 - an auxiliary hydraulic pressure source having an accumulator and a hydraulic pump, the hydraulic pump pressurizing the brake fluid supplied from the reservoir to a predetermined level for generating a power hydraulic pressure;
 - the hydraulic pressure generating device including a master cylinder and a hydraulic booster assisting operation of the master cylinder by using the power hydraulic pressure generated by the auxiliary hydraulic pressure source;
 - an output hydraulic pressure detecting means for continuously detecting an output hydraulic pressure of the accumulator of the auxiliary hydraulic pressure source;
 - vehicle condition detecting means for continuously detecting an operating condition of the vehicle;
 - driving condition setting means for setting a driving condition of the hydraulic pump based on the operating condition of the vehicle detected by the vehicle condition detecting means; and

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Mark-up of Claims 1 and 9

driving control means for controlling the hydraulic pump based on the driving condition of the hydraulic pump set by the driving condition setting means and the output hydraulic pressure of the accumulator of the auxiliary hydraulic pressure source.

9. (Amended) A hydraulic brake system for a vehicle comprising:

a hydraulic pressure generating device for pressurizing brake fluid supplied from a reservoir to apply a brake pressure to a wheel cylinder in response to operation of a brake operating member;

an auxiliary hydraulic pressure source having an accumulator and a hydraulic pump, the hydraulic pump pressurizing the brake fluid supplied from the reservoir to a predetermined level for generating a power hydraulic pressure;

the hydraulic pressure generating device including a master cylinder and a hydraulic booster assisting operation of the master cylinder by using the power hydraulic pressure generated by the auxiliary hydraulic pressure source;

an output hydraulic pressure detecting means for continuously detecting an output hydraulic pressure of the accumulator of the auxiliary hydraulic pressure source;

vehicle condition detecting means for continuously detecting at least one of a plurality of operating conditions of the vehicle, including whether the vehicle is in a stopped condition or a running condition, whether a vehicle load is greater than or less than

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Mark-up of Claims 1 and 9

a predetermined value, the absence or presence of an automatic braking condition, the absence or presence of a sudden breaking condition, and the absence or presence of a brake fade occurrence;

~~driving condition setting means~~ which sets a first driving condition of the hydraulic pump when the vehicle condition detecting means detects at least one of the stopped condition of the vehicle, the vehicle load being less than the predetermined value, the absence of the automatic braking condition, the absence of the sudden breaking condition and the absence of brake fade occurrence, and sets a second driving condition higher than the first driving condition when the vehicle condition detecting means detects at least one of the running condition of the vehicle, the vehicle load being greater than the predetermined value, the presence of the automatic braking condition, the presence of the sudden breaking condition and the presence of brake fade occurrence; and

driving control means for controlling the hydraulic pump based on either the first or second driving condition set by the driving condition setting means and the output hydraulic pressure of the accumulator of the auxiliary hydraulic pressure source.